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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/696,519	10/25/2000	Jeffrey H. Mumm	38,096	2591

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EXAMINER	
GOFF II, JOHN L	

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/696,519	MUMM ET AL.	
	Examiner	Art Unit	
	John L. Goff	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 November 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27 and 34-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27 and 34-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 October 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/29/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to amendment filed on 11/29/04.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-5, 9-16, 18, 19, 21-27, and 34-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smedberg (U.S. Patent 3,684,600) in view of the admitted prior art (Claim 1 and Specification pages 1-7) and Bieser et al. (WO 98/38375).

Smedberg discloses a process for manufacturing a tufted carpet with high fuzz resistance obtained through the use of a pre-coat adhesive (Column 1, lines 14-24 and Column 2, lines 10-12 and Column 5, lines 74-75). Smedberg teaches a method for manufacturing the tufted carpet comprising supplying a tufted primary backing having a bottom surface (stitched side), applying to the bottom surface a low viscosity aqueous pre-coat adhesive solution (stitch bind

composition), (optionally) drying the pre-coat, applying a melted thermoplastic binder on the pre-coat, and laminating a secondary backing to the primary backing through the adhesive and binder (Figure and Column 3, lines 1-5, 11-14 and Column 6, lines 28-34 and 49-51). Smedberg does not specifically suggest applying the thermoplastic binder by extrusion or as a solid. However, Smedberg teaches the thermoplastic binder can be applied by any suitable means (Column 3, lines 37-41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the thermoplastic binder taught by Smedberg using any well known and conventional technique such as by extrusion or melting/softening an applied solid, e.g. as a needled fabric, film, powder, fiber, etc., binder as shown for example by the admitted prior art as these were well known alternatives in the art for applying the thermoplastic binder to the primary backing wherein the use of any one of the techniques would have the same result. Smedberg teaches the thermoplastic binder may consist of polyethylene (Column 6, lines 66-75 and Column 7, lines 1-3). However, Smedberg does not disclose the particulars of the polyethylene binder. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the polyethylene binder taught by Smedberg any well known polyethylene binder used in the art as a thermoplastic binder applied to a primary backing following the application of a pre-coat adhesive such as the polyethylene binder suggested by Bieser et al. having a melt index of 1 to 70 g/10min wherein the use this polyethylene binder would have the expected result of adhering the secondary backing to the primary backing in a process substantially the same as that of Smedberg.

The admitted prior art discloses known techniques for manufacturing a carpet comprising a thermoplastic binder applied to the stitched side of a tufted primary backing. The admitted prior art teaches the method for manufacturing the carpet comprises supplying a tufted primary backing having a bottom surface (stitched side), applying to the bottom surface a thermoplastic binder, and laminating an additional backing to the primary backing through the binder (Specification page 1, lines 20-22 and page 2, lines 25-39 and page 3, lines 1-26). The admitted prior art teaches the primary and secondary backings may comprise woven polypropylene fabric (Specification page 1, lines 35-39). The admitted prior art teaches the face yarn of the tufted carpet is made from various materials including nylon, polyester, olefin, etc. (Specification page 2, lines 1-3). The admitted prior art teaches using as the thermoplastic binder one consisting of polyethylene or polypropylene (Page 3, lines 29-32 and Page 4, lines 22-38). The admitted prior art teaches it was known to apply the thermoplastic binder by extruding the binder onto the bottom surface of the primary backing or by applying a solid binder, e.g. as a film, powder, fiber, etc., and then melting it (Claim 1, lines 7-10 and Specification page 3, lines 1-13). Additionally, the admitted prior art teaches it was known to apply the thermoplastic binder by needling a nonwoven thermoplastic binder fabric to the primary backing (Specification page 3, lines 29-32).

Bieser et al. disclose a process for manufacturing a tufted carpet. Bieser et al. teach a tufted carpet comprising a primary backing material such as woven or non-woven polypropylene (Page 1, lines 36-37 and Page 2, lines 1-3). Bieser et al. teach the face yarn of the tufted carpet is made from various materials including nylon, polyester, and polypropylene (Page 30, lines 17-19). Bieser et al. teach a method for manufacturing the tufted carpet comprising supplying a tufted primary backing having a bottom surface (stitched side), applying to the bottom surface an

aqueous pre-coat solution (stitch bind composition), drying the pre-coat, extruding a thermoplastic binder on the pre-coat, and laminating a secondary backing (additional backing) to the thermoplastic binder (Page 32, lines 28-30, Page 35, lines 21-23 and 30-33 and Page 36, lines 1-3). Bieser et al. teach the pre-coat comprises an aqueous component (e.g. water) and an organic polymer component that is film forming and thermoplastic (e.g. polyethylene, ethylene acrylic acid, etc.) (Page 32, lines 30-33 and Page 33, lines 1-3). Bieser et al. teach the organic polymer component is 10 to 75 percent by weight of the pre-coat (Page 33, lines 5-8). Bieser et al. teach using as the thermoplastic binder materials having an MI of 1 to 500 g/10 min, (most preferable 25 to 35 g/10 min), with a MI of 1 to 70 g/10 min when polyethylene thermoplastic binder is used (Page 28, lines 2-7 and Page 37, lines 18-31 and Page 38, lines 1-2). Bieser et al. further teach the backing materials may comprise woven polypropylene yarns with an optional thermoplastic binder in the form of nonwoven polypropylene fibers needled thereto (Page 44, lines 5-8, 21-25, and 29-32 and Page 45, lines 26-30).

Regarding claims 1-4, 13-16, 18, 19, 21, 23-27, 38, 41, and 44, Smedberg teaches the primary backing may comprise spunbound polypropylene (Column 8, lines 36-38). Smedberg teaches the pre-coat adhesive comprises an aqueous component and an organic polymer component that is film forming, crosslinkable, and thermoplastic (e.g. polyethylene, ethylene/acrylic acid copolymers, styrene/butadiene copolymers, etc.) (Column 5, lines 27-47 and Column 6, lines 28-34 and 49-51). Smedberg teaches the organic polymer component is less than 40 percent of the pre-coat adhesive (Column 6, lines 30-33). Smedberg teaches the pre-coat adhesive has a low viscosity, 2-2000 cps, to be effective, i.e. because the pre-coat has a low viscosity it can readily penetrate the fiber bundles on the stitched side of the primary backing

(Column 3, lines 61-74 and Column 5, lines 18-20). Smedberg teaches the pre-coat adhesive is applied in amounts of 1.5 osy or less. However, Smedberg teaches the necessary amount of pre-coat adhesive is dependent on the carpet yarn density and the effectiveness of the adhesive itself (Column 6, lines 52-60).

Regarding claims 9-12, 35, 40, 42, 43, and 45, Smedberg is silent as to the tufted carpet comprising a primary backing and secondary backing made of a woven polypropylene fabric and face yarns made of nylon, polyester, or polypropylene filaments. However, Smedberg is not limited to any particular type of primary backing, the suggestion of spunbound polypropylene is merely exemplary, or secondary backing, and Smedberg is not limited to any particular type of face yarn filaments. It would have been obvious to one of ordinary skill in the art at the time invention was made to use as the primary backing and secondary backing taught by Smedberg any of the well known and conventional primary and secondary backing materials such as woven polypropylene fabric as shown for example by either one of the admitted prior art or Bieser et al. as only the expected results would be achieved. Furthermore, it would have been obvious to one of ordinary skill in the art at the time invention was made would to use as the face yarns taught by Smedberg any of the well known and conventional face yarn materials such as nylon, polyester, or olefin (including polypropylene) filaments as shown for example by either one of the admitted prior art or Bieser et al. as only the expected results would be achieved.

Regarding claim 25, Smedberg teaches applying the thermoplastic binder in the range of 5 to 15 osy (Table 2), and it would have been obvious to one of ordinary skill in the art at the time the invention was made to experimentally determine/optimize the thermoplastic binder weight as a function of the particular thermoplastic binder used, particular method of application,

etc., as doing so would have required nothing more than ordinary skill and routine experimentation.

Regarding claim 26, it is noted Smedberg as modified by the admitted prior art and Bieser et al. teach using a pre-coat adhesive comprising an organic component in an aqueous solution, i.e. the adhesive includes a liquid component. It is noted that while an aqueous solution is one that is made from, with, or by water, Smedberg does not specifically recite using water as the liquid component of the solution. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use water as the liquid component of the aqueous solution taught by Smedberg as modified by the admitted prior art and Bieser et al. water as it is well known and conventional in the art to use water as the liquid component in aqueous solutions.

Regarding claims 36 and 37, Smedberg is silent as to using as the secondary backing one formed of polypropylene fabric with a thermoplastic binder needled thereto. However, Smedberg is not limited to any particular type of secondary backing. It would have been obvious to one of ordinary skill in the art at the time invention was made to use as the secondary backing taught by Smedberg as modified by the admitted prior art and Bieser et al. any of the well known and conventional secondary backing materials such as woven polypropylene fabric with a thermoplastic binder in the form of fibers needled thereto as shown for example by Bieser et al. as only the expected results would be achieved.

5. Claims 1-5, 9-16, 18, 19, 21-27, 34-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Smedberg and Bieser et al.

The admitted prior art is described in full detail above. The admitted prior art additionally teaches the carpets with thermoplastic binders have a tendency to fuzz during use (Page 5, lines 10-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate into the admitted prior art the aqueous pre-coat adhesive solution taught by Smedberg (Smedberg is described in full detail above) as Smedberg discloses a process similar to that of the admitted prior art, i.e. applying a thermoplastic binder to the bottom surface of a tufted primary backing, wherein the aqueous pre-coat adhesive is applied to increase the fuzz resistance of the carpet. The admitted prior art does not disclose the particulars of the thermoplastic binder. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the thermoplastic binder taught by the admitted prior art as modified by Smedberg any well known and conventional thermoplastic binder used in the art as a binder applied to a primary backing following the application of a pre-coat adhesive such as the polyethylene binder suggested by Bieser et al. (Bieser et al. is described in full detail above) having a melt index of 1 to 70 g/10min wherein the use this polyethylene binder would have the expected result of adhering the secondary backing to the primary backing in a process substantially the same as that of the admitted prior art as modified by Smedberg.

Regarding claim 25, it would have been obvious to one of ordinary skill in the art at the time the invention was made to experimentally determine/optimize the thermoplastic binder weight as a function of the particular thermoplastic binder used, particular method of application,

etc., as doing so would have required nothing more than ordinary skill and routine experimentation.

Regarding claim 26, it is noted the admitted prior art as modified by Smedberg and Bieser et al. teach using a pre-coat adhesive comprising an organic component in an aqueous solution, i.e. the adhesive includes a liquid component. It is noted that while an aqueous solution is one that is made from, with, or by water, Smedberg does not specifically recite using water as the liquid component of the solution. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use water as the liquid component of the aqueous solution taught by the admitted prior art as modified by Smedberg and Bieser et al. water as it is well known and conventional in the art to use water as the liquid component in aqueous solutions.

Regarding claims 36 and 37, the admitted prior art is silent as to using as the secondary backing one formed of polypropylene fabric with a thermoplastic binder needled thereto. However, the admitted prior art is not limited to any particular type of secondary backing. It would have been obvious to one of ordinary skill in the art at the time invention was made to use as the secondary backing taught by the admitted prior art as modified by Smedberg and Bieser et al. any of the well known and conventional secondary backing materials such as woven polypropylene fabric with a thermoplastic binder in the form of fibers needled thereto as shown for example by Bieser et al. as only the expected results would be achieved.

6. Claims 6, 7, 16, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smedberg, the admitted prior art, and Bieser et al. as applied above in paragraph 4 or in the

admitted prior art, Smedberg, and Bieser et al. as applied above in paragraph 5, and further in view of Kato (U.S. Patent 4,836,871).

Regarding claims 6 and 7, Smedberg, the admitted prior art, and Bieser et al. as applied above teach all of the limitations in the claims except for a teaching on applying the aqueous pre-coat adhesive as a spray or foam. It is noted Smedberg teaches the pre-coat can be applied by means other than roll coating (Column 3, lines 37-41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the aqueous pre-coat adhesive taught by Smedberg as modified by the admitted prior art and Bieser et al. (or the admitted prior art as modified by Smedberg and Bieser et al.) using any well known and conventional technique such as by spraying or foaming as shown for example by Kato as these were well known alternatives in the art for applying an aqueous pre-coat adhesive to a primary backing wherein the use of any one of the techniques would have the same result.

Regarding claims 16 and 17, while Smedberg teaches the use of organic polymer components that are crosslinkable, Smedberg is silent as to a specific teaching of crosslinking the organic polymer component of the aqueous pre-coat adhesive. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the organic polymer component of the aqueous pre-coat adhesive taught by Smedberg as modified by the admitted prior art and Bieser et al. (or the admitted prior art as modified by Smedberg and Bieser et al.) organic polymer components that are crosslinked (and including crosslinking agent) as it was known in the art to use crosslinkable organic polymer components (and crosslinking agents) in an aqueous adhesive as shown for example by Kato to manufacture tufted carpet with improved fitting ability and tufted carpet more suitable for being walked upon.

Regarding claim 20, Smedberg does not specifically disclose using styrene acrylate copolymer as the organic polymer component of the aqueous pre-coat adhesive. However, Smedberg teaches the use of organic polymer components including polyvinyl acetate, styrene/butadiene copolymer, ethylene/vinyl acetate copolymer, etc., and Smedberg is not limited to any particular organic polymer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the organic polymer component of the aqueous pre-coat adhesive taught by Smedberg as modified by the admitted prior art and Bieser et al. (or the admitted prior art as modified by Smedberg and Bieser et al.) styrene acrylate copolymer as it was a well known alternative organic polymer component to polyvinyl acetate, styrene/butadiene copolymer, ethylene/vinyl acetate copolymer, etc. in aqueous adhesives in the art as shown for example by Kato.

Kato discloses using an aqueous adhesive or a crosslinkable aqueous adhesive in addition to a binder to adhere a primary backing (e.g. tufted carpet) to a secondary backing (Column 4, lines 16-37 and 41-68). Kato teaches that the aqueous adhesive comprises an aqueous component and an organic polymer component wherein the organic polymers may include styrene acrylate copolymer, e.g. s styrene-methyl methacrylate copolymer, styrene-n-butyl acrylate copolymer, etc., polyvinyl acetate, styrene/butadiene copolymer, ethylene/vinyl acetate copolymer, etc. (Column 6, lines 63-68 and Column 7, lines 1-4). Kato teaches applying the aqueous adhesive as a spray, foam, or the like (Column 8, lines 13-15). Kato teaches the crosslinkable aqueous adhesive forms a tufted carpet having improved fitting ability and a tufted carpet more suitable for being walked upon (Column 3, lines 51-57).

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smedberg, the admitted prior art, and Bieser et al. as applied above in paragraph 4 or in the admitted prior art, Smedberg, and Bieser et al. as applied above in paragraph 5, and further in view of Bogdany (U.S. Patent 4,836,871).

Smedberg, the admitted prior art, and Bieser et al. as applied above teach all of the limitations in the claims except for a teaching on applying the aqueous pre-coat adhesive as a froth. It is noted Smedberg teaches the pre-coat can be applied by means other than roll coating (Column 3, lines 37-41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the aqueous pre-coat adhesive taught by Smedberg as modified by the admitted prior art and Bieser et al. (or the admitted prior art as modified by Smedberg and Bieser et al.) using any well known and conventional technique such as by frothing as shown for example by Bogdany as this was a well known alternative in the art for applying an aqueous pre-coat adhesive to a primary backing wherein the use of any one of the techniques, roll coating or frothing, would have the same result.

Bogdany discloses applying a carpet backing adhesive comprising organic polymer components such as those taught by Smedberg and corn syrup to a tufted carpet primary backing as a froth to adhere a secondary backing (Column 2, lines 12-15).

Response to Arguments

8. Applicant's arguments with respect to claims 1-27 and 34-45 have been considered but are moot in view of the new ground(s) of rejection.

Arguments to Smedberg in view of the admitted prior art

Applicants argue, "The hot melt adhesive formulations described as useful carpet backsize adhesives in Smedberg and all of the patents it cites include at least ethylene-vinyl ester or -acrylate or -methacrylate copolymer and wax in their formulations and, in many cases, additional resin extender blends and inorganic fillers. Those formulations are not thermoplastic binders consisting essentially or entirely of a thermoplastic polypropylene, polyethylene ethylene propylene copolymer resin or combination thereof, as recited in the claims of the subject application.

Smedberg's teaching at Col. 6 line 66 to Col. 7 line 3 has been interpreted as a teaching of hot melt adhesives comprising polyethylene or entirely polyethylene according to pages 12 and 13 of the outstanding action. From the preceding discussion, however, it is clear that the interpretation is inconsistent with Smedberg and the patents it cites.".

Smedberg discloses the backsizing adhesive can consist solely of a polymeric binder resin such as polyethylene. This is an express disclosure and not an inconsistent interpretation of Smedberg. See Column 6, lines 66-75 and Column 7, lines 1-3 below (Emphasis Added).

"A variety of hot melt adhesives are useful as the backsizing composition in the present process. While ***such adhesives can consist solely of a polymeric binder resin, such as an ethylene/vinyl acetate copolymer***, for economic reasons they generally include substantial quantities of other ingredients. Thus, in addition to a polymeric binder resin, useful adhesive compositions generally contain at least one of the following ingredients: waxes, fillers, and resin extenders. **Also,** in addition to or ***in place of ethylene/vinyl acetate resins other types of binder resins such as polyethylenes*** and ethylene/acrylate or methacrylate copolymers ***can be used.***"

> Applicants further argue, "The viscosities of Smedberg's hot melt compositions used as carpet backsizes are conducive to application with roll applicator systems but not to spinning fibers for nonwoven fabrics or extrusion of films and coatings.", and in the declaration applicants argue "The Smedberg Patent is unclear about how the viscosities of its hot melt adhesive backsize compositions are measured, but on information and belief, the melt viscosities of the thermoplastic binder resins of the Application at comparable temperatures are at least an order of magnitude greater than the viscosities described in the Smedberg Patent."

The claims are not commensurate in scope with this argument as there is no particular viscosity required by the claims it being noted the claims do require a particular melt index which through the declaration (See in particular paragraph 16) applicants appear to be relating the melt index to requiring a particular viscosity although it is unclear what actual particular viscosity is required. In any event, Smedberg does not require and does not teach away from any particular backsize adhesive viscosity. Smedberg discloses a typical backsize adhesive applied using a roll applicator will usually have a viscosity of 5,000 to 50,000 (Column 7, lines 28-31). However, Smedberg clearly states the use of any particular backzise adhesive is not limited (Column 6, lines 66-75 and Column 7, lines 1-3), and the method of applying the backsize adhesive is not limited (Column 3, lines 37-41). Thus, as the viscosity of the backsize adhesive is primarily a function of the particular backsize adhesive used and the particular method used to apply the backsize adhesive (as noted by applicants in the arguments above) it is clear Smedberg does not require and does not teach away from any particular viscosity, it being noted Smedberg in view of the admitted prior art and Bieser et al. clearly suggests a backsize adhesive consisting of polyethylene have a melt index of 1 to 70 g/10min.

Arguments to U.S. Patents 3390035, 3551231, 3583936, and 3745054

None of these U.S. Patents were applied in the previous Office Action. U.S. Patent 3,551,231 is cited in the background of Smedberg as the process disclosed by Smedberg is an improvement over the prior art process disclosed in U.S. Patent 3,551,231. The other U.S. Patents are not directly cited in Smedberg, and it is unclear how their teachings would directly apply to Smedberg. In any event, as noted above there is a clear, express disclosure in Smedberg that the backsize adhesive may consist of polyethylene such that the disclosures of these other U.S. Patents are not relevant.

Arguments to the admitted prior art in view of Smedberg

> Applicants argue, "There are fundamental differences between Smedberg's hot melt adhesive carpet backsize compositions and process and the claimed process and thermoplastic binders, such that Smedberg's teachings regarding use of its precoats in its hot melt backsize process cannot reasonably be extended to thermoplastic binder processes, and even if they were, it would not lead to the claimed process or any expectation of the results attained thereby.".

As noted above, Smedberg teaches a backsize adhesive consisting of a thermoplastic binder may be used, and Smedberg is not limited to any particular backsize adhesive application method. Thus, the teaching of Smedberg (and in particular the teaching of a pre-coat for use with a backsize adhesive consisting of a thermoplastic binder) are directly applicable to the admitted prior art.

> Applicants further argue, "Further, in contrast to Smedberg's showing that scrim bonds for all of its examples were less than the 27 lb/in^3 in precoat-free example IV, and that all but two of its examples with precoat were below 20 Ib/in3, Examples 3-37 of the subject application show that the improved fuzz resistance achieved according to the claimed process was in almost all instances accompanied by increases, and frequently significant increases, in tuft lock as compared to controls using thermoplastic binders without stitch bind compositions. Those results would not have been expected from

> Smedberg. As seen from the accompanying Declaration of Dr. Gardner, they are unexpected and surprising to him from his understanding of Smedberg."

One of ordinary skill in the art would have readily combined the admitted prior art with Smedberg to achieve the improved fuzz resistance disclosed by Smedberg.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John L. Goff

JEFF H. AFTERGUT
PRIMARY EXAMINER
GROUP 1300